8. CONCLUSIONS

Boeing Realty Corporation began a phased redevelopment of the 170-acre C-6 property in 1996. Redevelopment of the northernmost portion of the property, Parcel A, began in 1996 and is ongoing. Parcel A has undergone, as required, environmental investigation, assessment, and excavation during demolition. During demolition, over 1200 samples were collected in support of more than 300 samples collected over the past 10 years. All of the data from these recent and historical activities were evaluated for use in this risk assessment.

Parcel A demolition is complete. All 9 buildings (725,000 square feet) have been razed, and the parcel has been graded for redevelopment. At the request of DTSC (Cal/EPA 1998c), three arsenic-impacted areas (containing eight hits) are being excavated and will be sent off site. It is important to note that this post-demolition risk assessment has assumed that these hot-spots have been remediated to background concentrations. Integrated and Boeing have agreed to perform confirmation sampling of these areas after remediation and provide the results to RWQCB and DTSC to substantiate the findings of this risk assessment. DTSC has agreed to this approach to allow for conditional approval of the risk assessment while the requested, limited arsenic removal progresses.

Almost 75 percent of the parcel (27.5 acres) has been sold and is awaiting agency approval of soil closure and title transfer. Before title transfer, 2 feet of clean, imported clayey soil will be placed over the 39.5 acres of Parcel A. This material is required to meet the specified grading conditions for the future site owner. However, the maintenance of this material will not be specified in the proposed deed restrictions. Therefore, this risk assessment has estimated potential health effects both with and without the fill material.

This risk assessment was developed to evaluate the health protectiveness of post-demolition site conditions at Parcel A. Specifically, does Parcel A adequately protect the health of future users?

Also, what are the health impacts, if any, associated with redevelopment of the parcel as a commercial/industrial facility?

Table 8-1 summarizes the health risk to future Parcel A users. Incremental lifetime cancer risk (ILCR) and hazard index (HI) values are projected for receptors working in the two defined areas of potential concern (AOPCs) and for receptors living or working near the site. As shown in the table, all risks are well below the previously discussed (IESI 1998b) *preliminary* risk management goals for the commercial/industrial development of Parcel A (ILCR of 10^{-5} and HI of 1).

Exposures and associated risks detailed in this report were developed conservatively using the EPA's reasonable maximum exposure (RME) approach. Risks were estimated assuming the construction and daily use of the parcel as a light commercial/industrial facility. Under the approved site cleanup strategy developed by Integrated and Boeing for C-6 (Cal/EPA 1997), the post-demolition risk assessment has been used to evaluate the potential health risks to future users of the redeveloped parcel and to identify any localized "hot spots" requiring further remediation.

This risk assessment has demonstrated in a conservative manner that upon completion of all remedial excavations, post-demolition conditions at Parcel A will not pose a public health concern. Furthermore, upon completion of the projected commercial/industrial development, the potential health risk will diminish.

Because the RME approach was used to quantify potential health impacts in this risk assessment, it is very likely that all other, lesser exposures related to Parcel A are also within these limits. Therefore, assuming the completion of the arsenic excavations and confirmation sampling requested by DTSC, it is the conclusion of this report that Parcel A soils are health protective and require no further remedial action.

TABLE 8-1
SUMMARY OF POST-DEMOLITION HEALTH RISK,
C-6 FACILITY, PARCEL A

On-Site Receptors	HI	ILCR
AOPC 1		
Construction Worker	5.1E-02	1.4E-06
Commercial/Industrial Worker, RME[a]	4.8E-02	9.3E-08
Commercial/Industrial Worker, Upper Bound[b]	5.3E-02	4.5E-06
AOPC 2		
Construction Worker	1.5E-02	7.7E-07
Commercial/Industrial Worker, RME[a]	4.8E-02	9.3E-08
Commercial/Industrial Worker, Upper Bound[b]	4.9E-02	2.6E-06
Off-Site Receptors	**HI**	**ILCR**
Commercial/Industrial Worker	2.5E-02	5.2E-08
Resident Adult	1.2E-03	2.9E-09
Resident Child	5.5E-03	2.7E-09

[a]Reasonable Maximum Exposure conditions, assumes 2-foot layer of clean fill.
[b]Upper Bound exposure conditions, assumes no layer of fill.
AOPC = Area of Potential Concern
HI = Hazard Index
ILCR = Incremental Lifetime Cancer Risk